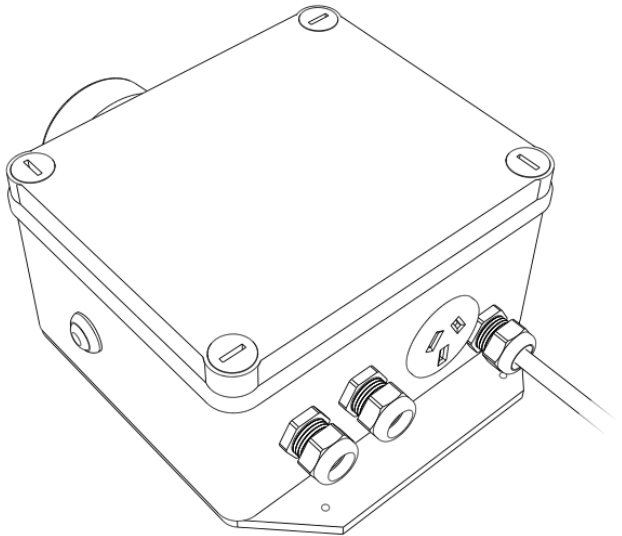


EES64 Timer Pump Controller Manual



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Electronic & Electrical Solutions Pty Ltd
3/9 Rawlins Circuit
Kunda Park
QLD 4556
Australia

Phone: +61 07 5453 4355
email: admin@eesolutions.net.au

www.eesolutions.net.au

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2 Introduction

The EES64 Timer Pump Controller was designed initially as a solution for wet weather storage of treated effluent but can be used for a wide range of other applications. This manual will explain how to install and operate the EES64 controller.

The EES64 has been designed with ease of use and longevity in mind but to ensure maximum lifespan please follow all instructions carefully.

This manual makes use of the following symbols to indicate warnings that must be paid specific attention to:



Damage to equipment or personal harm may occur if this instruction is not followed.



Electrical risk (electrocution hazard) may occur if this instruction is not followed.

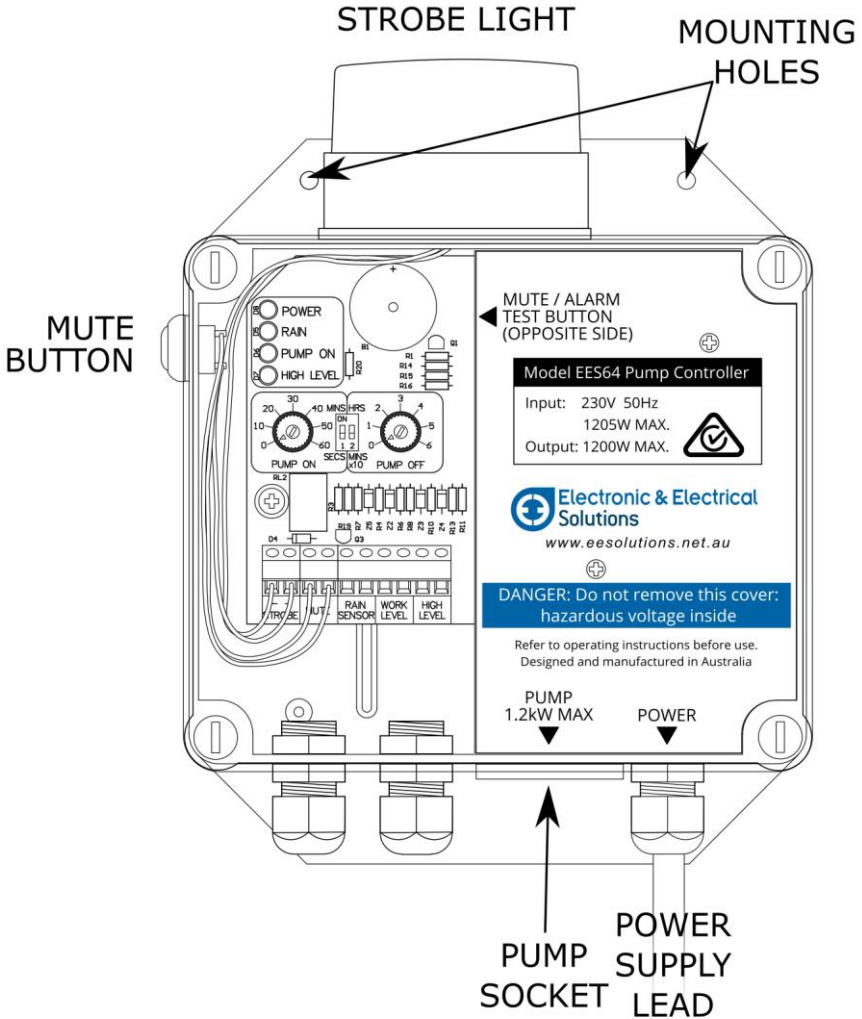
3 Electrical and Safety Requirements

The EES64 operates from single phase, 240Vac. Due to the plug-in nature, an electrical license is not required to install or remove this device.



If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified person in order to avoid a hazard.

4 Controller Layout



5 Operation Description

Operation of the EES64 is very simple and revolves around float switch and rain sensor inputs and timers.

Two float switch inputs determine when the pump should operate. A rain sensor input enables the pump operation to be inhibited following periods of high rainfall. The two dials and selector switches on the circuit board allow the pump on and off times to be adjusted for controlled release of water once rain has stopped.

Working Level

When the working level float rises the pump will be operated according to the *Pump On* and *Pump Off* timers. The pump will continually operate and then pause for the set times while ever the working level float is up, unless a rain or high level condition occurs.

Any time the working level float drops the timers are reset and next time the float rises the pump will begin running and timing from zero again.

High Level

If the high level float rises then the pump will be switched on constantly (ignoring the on and off timers). This overrides both the working level float and rain sensor.

Rain

A swelling cork style rain sensor is connected to the *Rain In* input. This signal is normally closed (and opens once sufficient rain has fallen). If the working level float rises while rain has been detected then the

pump will not run. The high level float will override the rain sensor and force the pump to run until the high level float drops again.

High Level Alarm

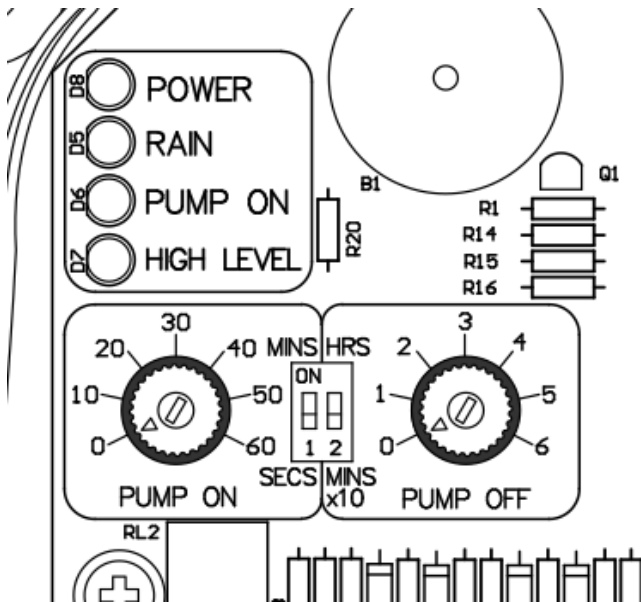
When the high level float rises the siren and strobe light will immediately activate, alerting to the alarm condition. The siren can be silenced by pressing the mute button on the left hand side of the EES64.

Alarm Test

An alarm test can be performed at any time by pressing and holding the mute button for more than 2 seconds. This will turn on the strobe and siren. Once the button is released the alarm test will cease.

6 Operator Interface

The EES64 has been designed with ease of use in mind and has a simple operator interface in the top left of the enclosure:



All necessary information via the four status LEDs, as follows:

LED	LED State	Meaning
Power	Off	The system has no power
	On	The system has power and is running
Rain	Off	No rain
	On	Rain input active
Pump On	Off	Pump off
	On	Pump on
	Slow flash	Currently pump off timer period
High level	Off	No high level
	On	High level

The pump on and pump off times are set using the two dials so that the arrow points to the desired time. There are two options for time range, configured using the selector switches:

Dial	Switch Position	Range
Pump On	Up (on)	0 – 60 minutes
	Down (off)	0 – 60 seconds
Pump off	Up (on)	0 – 6 hours
	Down (off)	0 – 60 minutes

7 Installation



Always use a licensed electrician if any repairs or modifications to the fixed 240V mains are required.



Do not remove the internal cover as there are hazardous voltages inside. For servicing and repairs of the EES64 controller please contact Electronic & Electrical Solutions.

Location

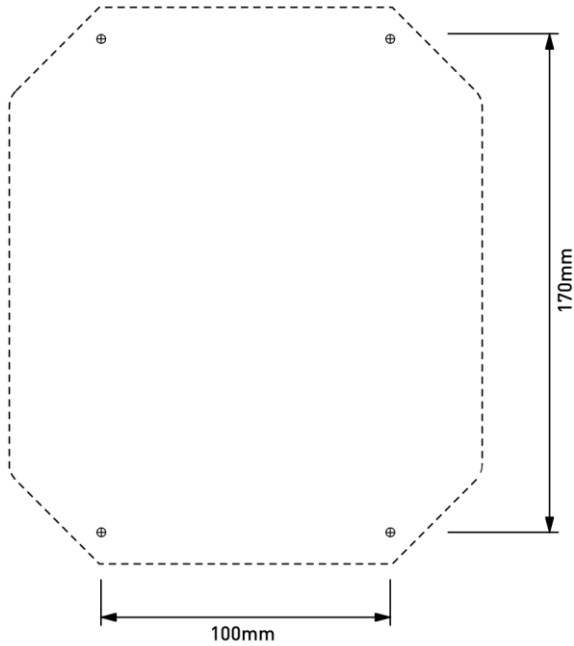
Although the EES64 features basic weatherproof construction, it **must** be protected from direct contact with the weather.



Ensure that the EES64 is mounted in a location that cannot be exposed to water.

Mounting

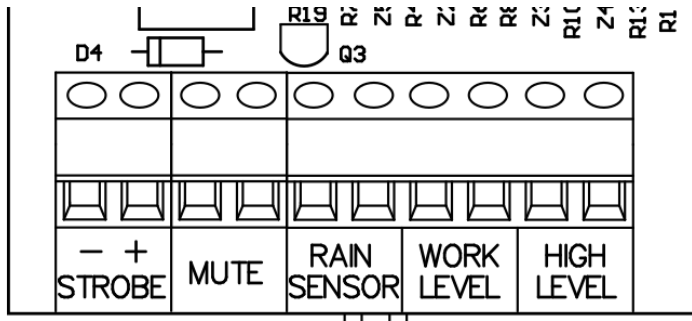
The EES64 includes an integral mounting bracket which has four, 6mm holes. Refer to the following diagram for the mounting hole layout.



Connections

All electrical parts that are accessible are at safety extra low voltage levels so are not hazardous, even when power is on. To minimise the risk of damage all connection or disconnection should be performed with the power off.

Connections to the EES64 are made via the internal screw terminals. Each connection is labelled just below the terminals. Wires should be brought into the enclosure using cable glands for both mechanical relief and moisture ingress protection. The following diagram shows the terminations:



Strobe

Unless ordered specifically without a strobe mounted to the top of the enclosure, the strobe terminals will already be wired. Output is 12VDC (nominal), 200mA max.

Mute

The mute/alarm test button on the left side of the unit is pre-wired into the muter terminals. Some applications may require the use of an externally mounted mute button instead of or in addition to the standard button and this can be achieved by connecting the other button into these terminals. For two buttons they must be wired in *parallel*.

Rain Sensor

The rain sensor input is designed to work with a normally closed sensor (opens on rain). If a rain sensor is not being used then the rain sensor terminals will need to be joined with a bridging wire.

Work Level and High Level

The float switch inputs are designed to work with normally open (close on rise) float switches.

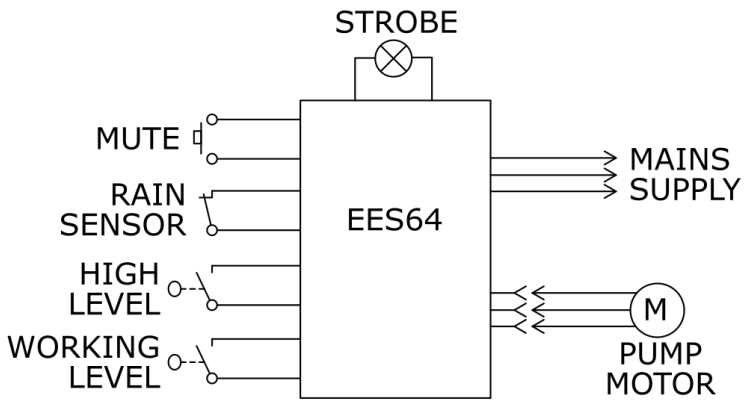
240V Connections

The 240V mains connections to the EES64 are standard 10A Australian plugs and sockets. Power to the unit is supplied via the 1m long plug lead and output to the pump is provided by the socket-outlet on the bottom right of the unit.



The maximum power draw from the pump outlet must not exceed 1200W or damage to the controller may occur.

Wiring Diagram



8 Specifications

Size:	170 x 210 x 90mm
Weight:	0.95kg
Supply voltage:	230VAC +/- 10%, 50Hz
Power draw (controller only):	5W max
Pump output:	230VAC, 1200W max
Strobe output:	12VDC nominal. 200mA max current
Float switch inputs:	12VDC into 1200 Ω input impedance
Rain sensor input:	12VDC into 1200 Ω input impedance
Mute button input:	12VDC into 1200 Ω input impedance

9 Warranty

Standard Warranty Terms and Conditions: Manufacturers Warranty

1. Electronic & Electrical Solutions Pty Ltd warrants that, during the warranty period this product will be free from faulty parts, manufacture or workmanship when used within normal operating conditions.
2. The warranty period for the EES64 Waste Treatment Controller is 12 months from the date of purchase.
3. The warranty does not apply where damage is caused by other factors, including:
 - (a) abuse, mishandling, accident or failure to follow operating instructions.
 - (b) exposure to liquid or infiltration of foreign particles exceeding the IP rating of the unit.
 - (c) servicing or modification of the EES64 other than by Electronic & Electrical Solutions.
 - (d) use of the EES64 with other accessories, attachments, parts or devices that do not conform to the specifications laid out in this manual.
 - (e) damage during shipment.
4. Any repair work carried out will receive a further 12 month warranty. A fresh warranty does not apply to any parts not repaired.

Warranty Claim Procedure

1. You must inform Electronic & Electrical Solutions as soon as the warranty claim arises.
2. Once authorised, return the unit (at the customer's cost) to Electronic & Electrical Solutions to be assessed and repaired. Ensure that all contact information and a written fault description are included.
3. The unit will be assessed and, as appropriate, either repaired or replaced. It is then returned to the customer at the cost of Electronic & Electrical Solutions.